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## **ABSTRACT**

A system and method for monitoring the load on a CDMA communication system having a base station and a plurality of users. A measure of voice activity in the communication system is determined, and a current value of frequency reuse efficiency equal to an initial value of frequency reuse efficiency is provided. A power determination is made according to the measured voice activity and the current value of frequency reuse efficiency. The current value of frequency reuse efficiency is updated using the power determination to provide a new current value of frequency reuse efficiency. The power determination and the update of the frequency reuse efficiency are iteratively repeated until convergence to provide a converged value of frequency reuse efficiency. The load on the communication system is then determined according to the converged frequency reuse efficiency value.